Streamlining Application Workflow

Erie County

LEAN SIX SIGMA PROJECT

April – October 2008

TEAM MEMBERS

- Michael Weiner – Champion
- Al Hammonds/Thom Marra – Black Belt
- Process Owner – Michael Carr
- Doug Champagne – Temporary Assistance
- Barb Farr – Temporary Assistance
- Karen Grzankowski - DISS
- Virginia Keating - Medicaid
- Patty Milton - Medicaid
- Dick Planavski - Budget
- Julie Saxer – Food Stamps
- Mike Schenkel – DISS
- Lisa Stachowski – Food Stamps
- Kathy Tripp – Financial Records

DEFINE PHASE

Streamlining Application Workflow

Project Charter - Define

Strategic Goal/Business Case:

- Reduce the amount of overtime utilized by focusing on workload distribution, employee capacity and utilization.
- Where technology is applicable will convert to a paperless system.

Problem Statement:

- Overtime utilization increased from $205,135.00 to $685,539.00 since 2005

Project Objective:

- Reduce the amount of overtime utilized from $685,539.00 to $585,539.00 and implemented by 10/30/08

Project Charter cont.- Define

Benefits/Savings Potential:

- Expected to save the Department of Social Services over $100,000.00 after implementation of changes

Scope/Boundaries:

- Application, interview, and write up processes of Temporary Assistance
- The scope of this project excludes all activities associated with Medicaid, Food Stamps, Youth Detention, Services and other areas driving overtime

Timeline:

- April 2008 through October 2008

MEASURE PHASE

Streamlining Application Workflow

Tools Used - Measure

Pareto Graph:

- TA used 16% of total DSS OT budget

Cause & Effect Matrix:

- Three highest values in interview and write-up process

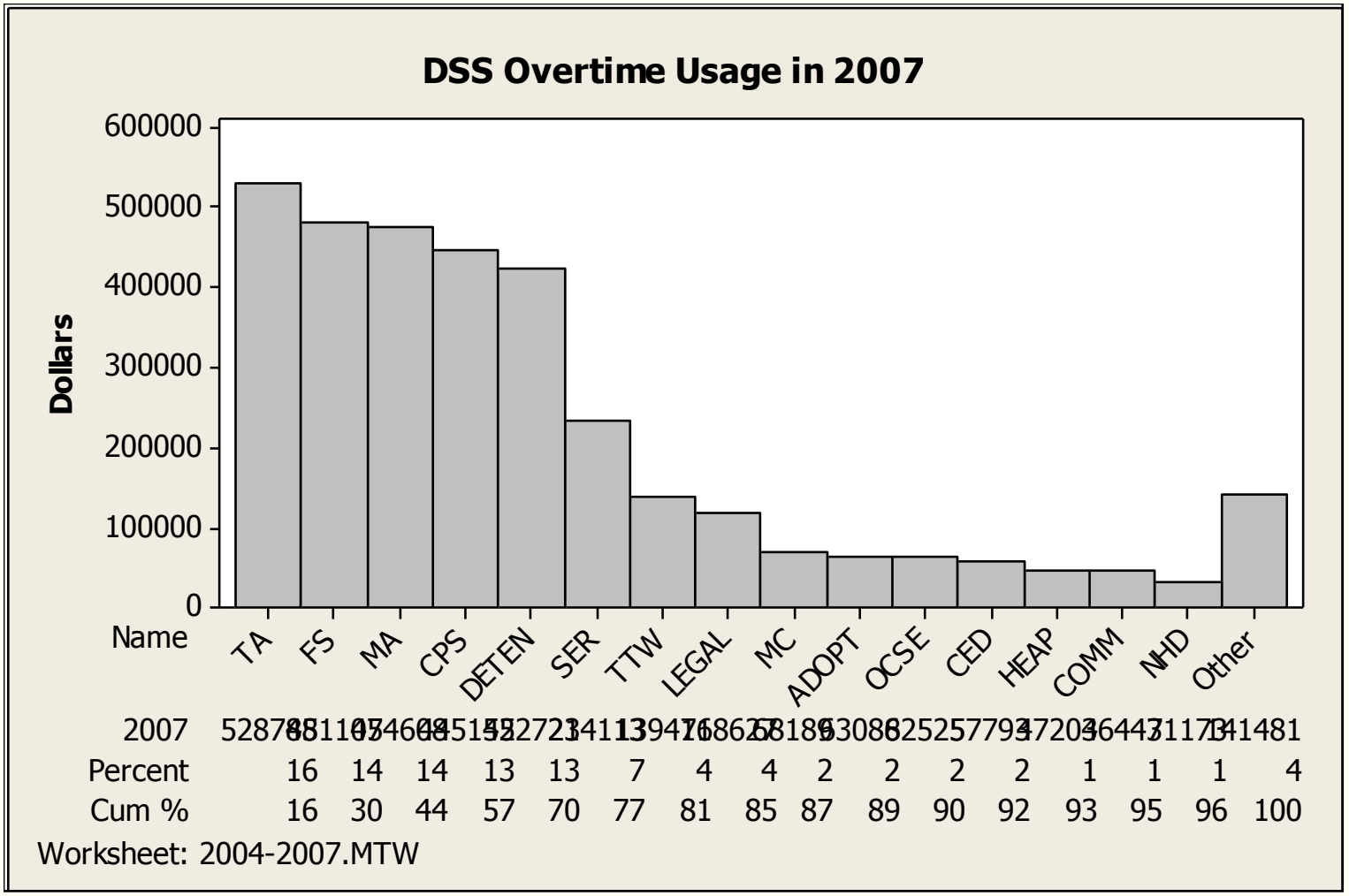
Detailed Value Stream Map:

- Complete Temporary Assistance Process

Capability Analysis:

- Hours per certification
- Minutes per prep, interview and write-up process

Pareto Graph



C & E Matrix – Measure

			1	2	3	4			
			Prompt Interview - within 10	Courteous Interviewer	Length of Interview	Computer Interview			
		Customer Priority	7	9	5	3			
	Process Step	**Process Input**							**Total**
1	Interview process	worker	9	9	9	9			216
2		application	9	9	6	9			201
3		desk/workstation	9	6	9	9			189
4		interview guide	9	6	9	6			180
5		copier/printer	9	3	9	9			162
6		forms/prep	9	3	9	9			162
7		onbase/uts	9	3	9	9			162
8		wms	9	3	9	3			144
9		computer	6	3	9	9			141
10		tax rolls	3	3	9	9			120
11		dol/internet access	6	3	6	6			117
12		pen	3	3	9	3			102
13		centraport/solq	3	3	6	6			96
14		clearance report	3	3	6	6			96
15		fische	3	3	6	6			96
16		telephone	3	3	6	6			96
17		work number	3	3	6	6			96
18		demographics/verification	3	3	3	3			72
		Total	756	648	675	369	0	0	

Highest Values

1.Staff

2. Application

3. Work station

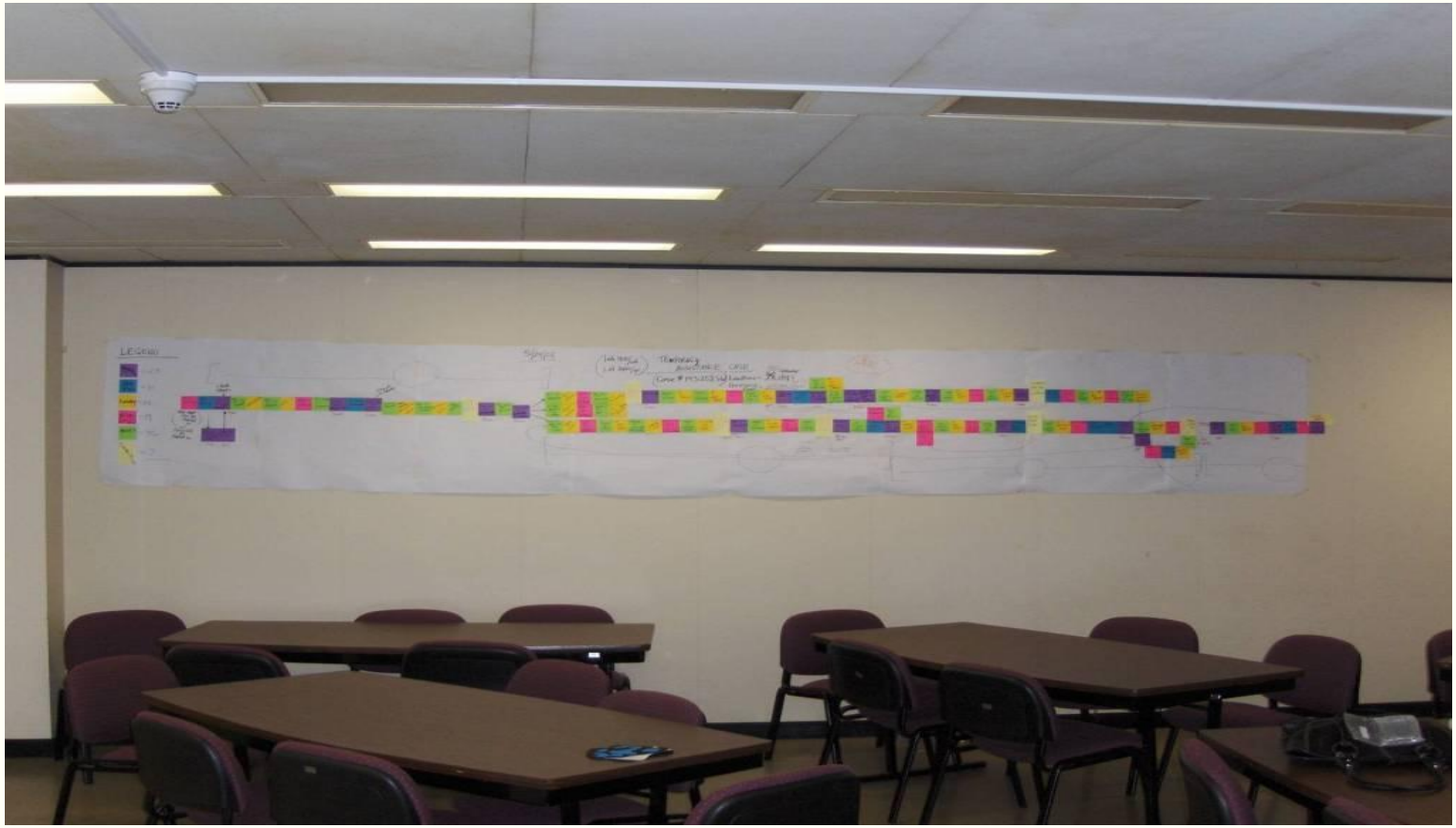
C & E Matrix – Measure

			1	2	3	4	5	
			Accurate Information	Complete Information	Correct decision	Computer Write-up	Timely Completion	
		Customer Priority	5	3	9	1	7	
	Process Step	**Process Input**						**Total**
1	Write-up process	verifcations/workbook	9	9	9	3	9	219
2		wms	9	9	9	3	9	219
3		centraport	9	6	9	3	9	210
4		telephone	6	9	9	3	9	204
5		internet access	6	6	9	3	9	195
6		emp data base/oracle	3	9	9	3	9	189
7		supervisor review	6	9	6	3	9	177
8		apptad/3209	9	9	3	3	9	165
9		ded/iads/screen 8	9	9	3	3	9	165
10		k247	9	9	3	3	9	165
11		pen	9	9	3	3	9	165
12		copier	6	9	3	3	9	150
13		deo	3	9	3	3	9	135
14		printer	3	9	3	3	9	135
15		e-mail	6	3	3	3	9	132
16		interoffice mail/staff listing	3	9	3	3	6	114
17		folder/ junk folder/paper clips	3	9	3	3	3	93
		Total	540	423	810	51	1008	

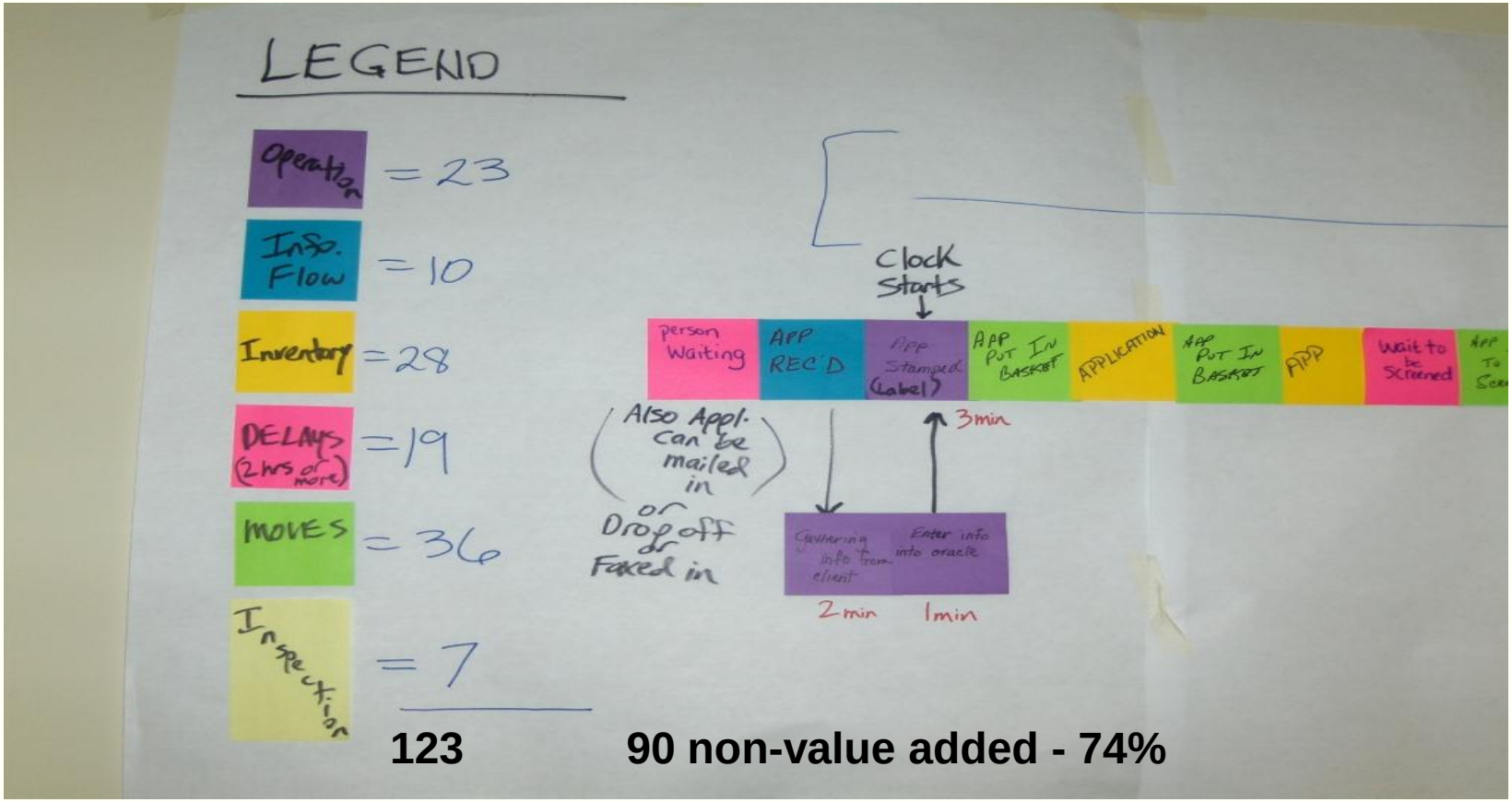
Highest Values

- Client Verifications
- WMS
- Workbook

Value Stream Map – Measure



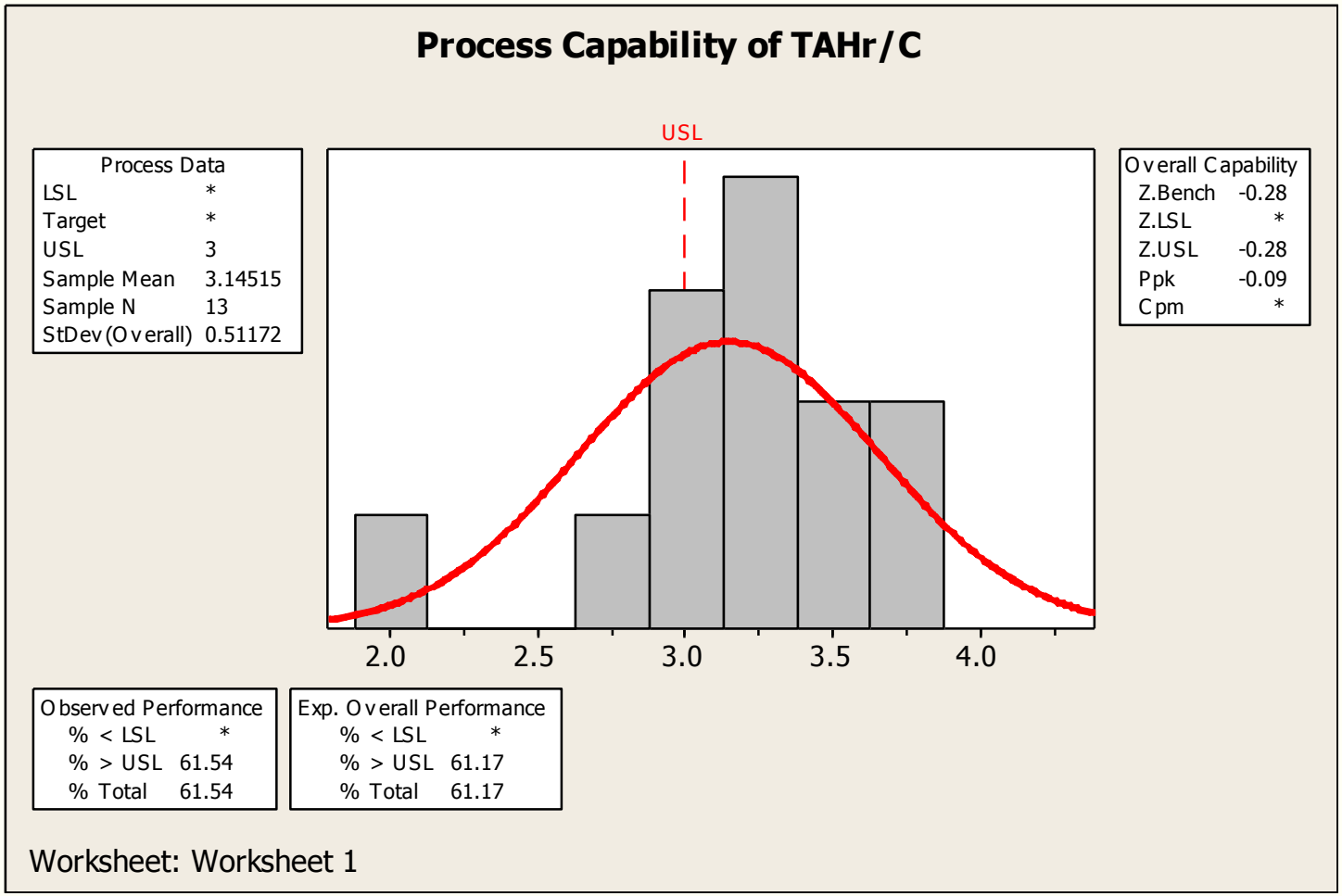
Value Stream Map – Measure



123 **90 non-value added - 74%**

Value Stream Map – Measure

Certification Process



Task Evaluation – Measure

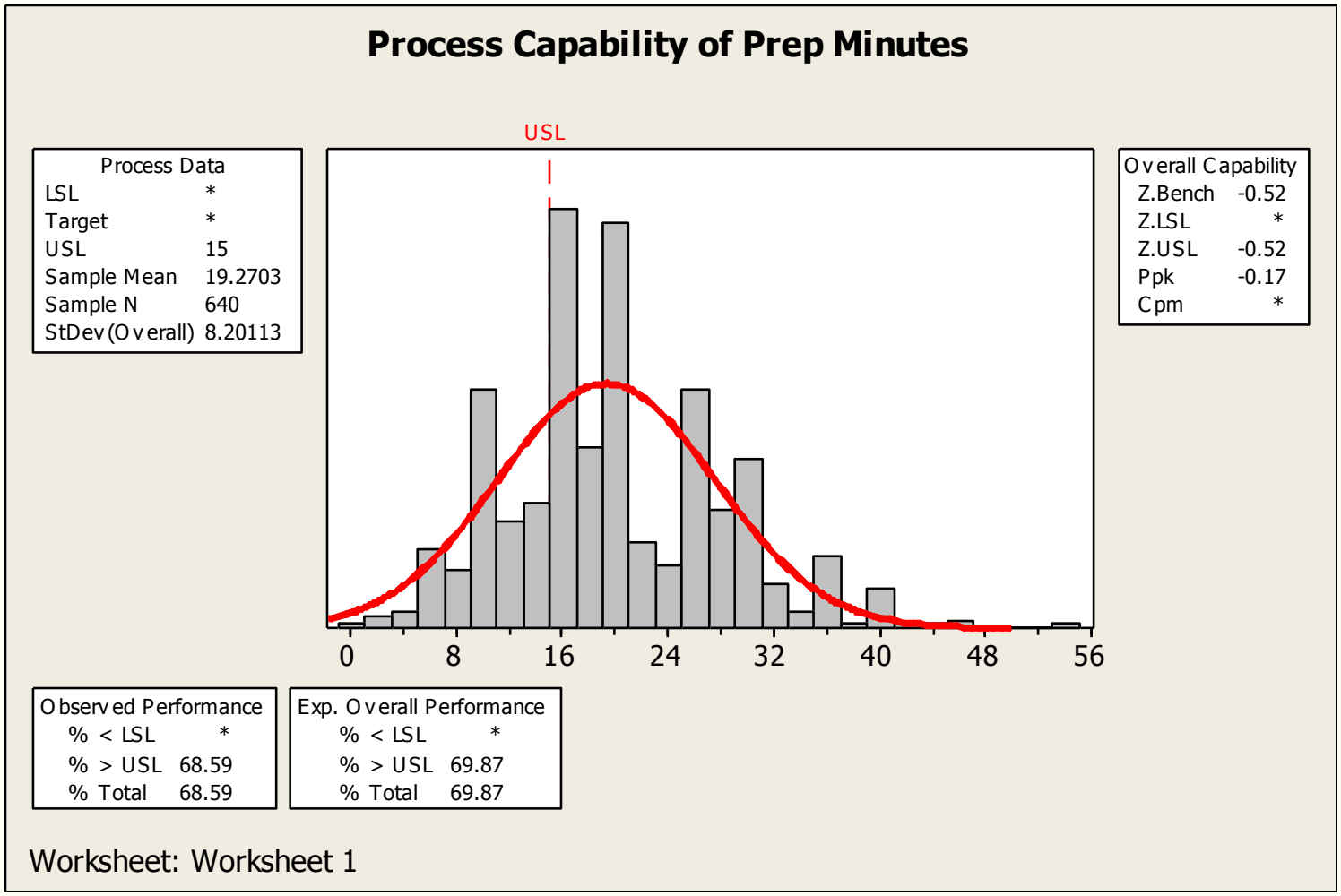
Date _____ **Unit #** _____ **Worker #** _____ **Years in your program area** _____

<1 yr,1-2 yrs, 2- 5 yrs, 5-15 yrs, >15 yrs

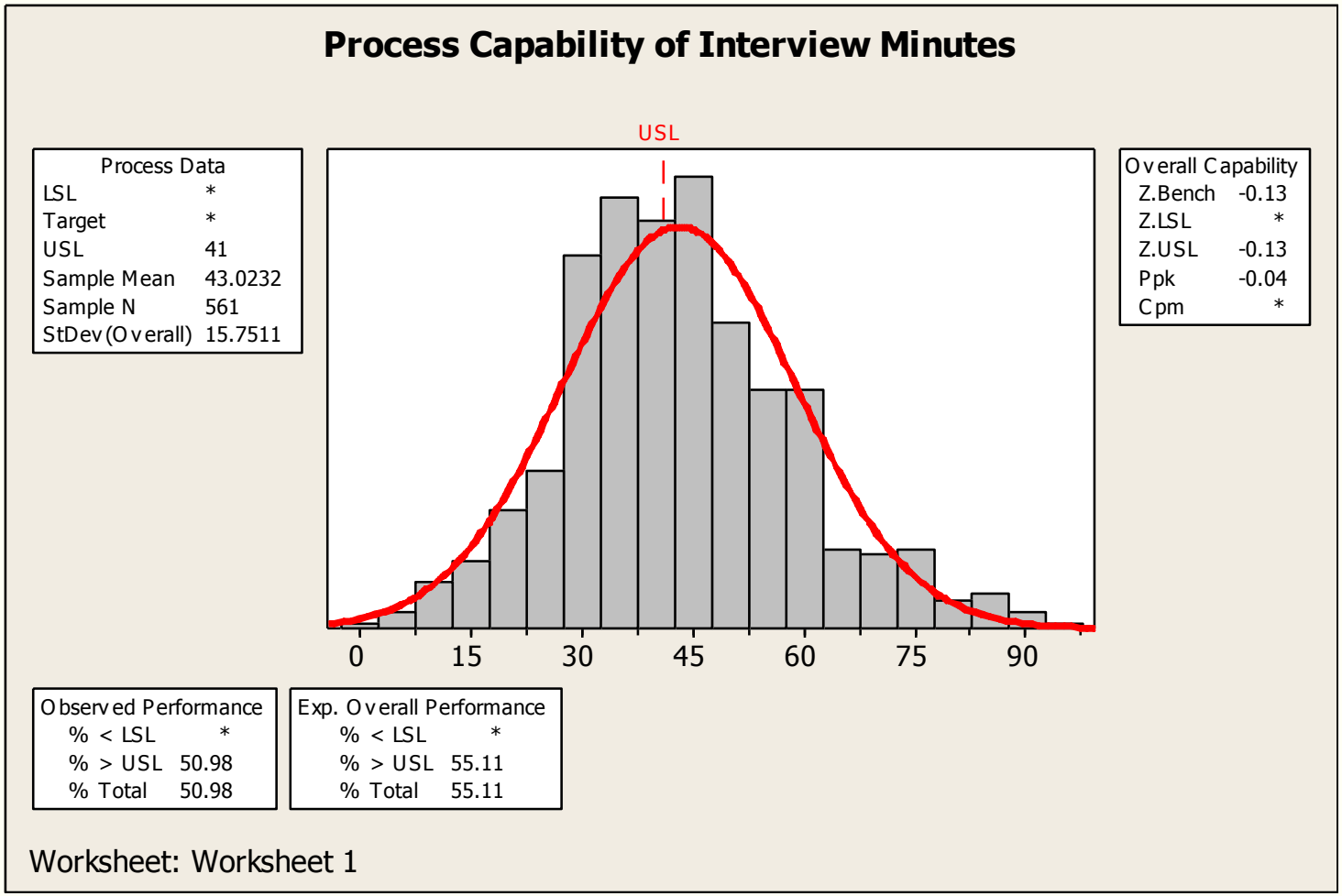
	Case #	Case Type*	HH Size**	Primary Language***	Interview Prep Time		Interview Time		Write-up Time		Disposition
					Start	Finish	Start	Finish	Start	Finish	Open or Deny
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

*Case Type - 11,12,16,17,20,24 ** HH Size - # of people applying *** Primary language - E-English, S- Spanish, O-Other

Prep Process

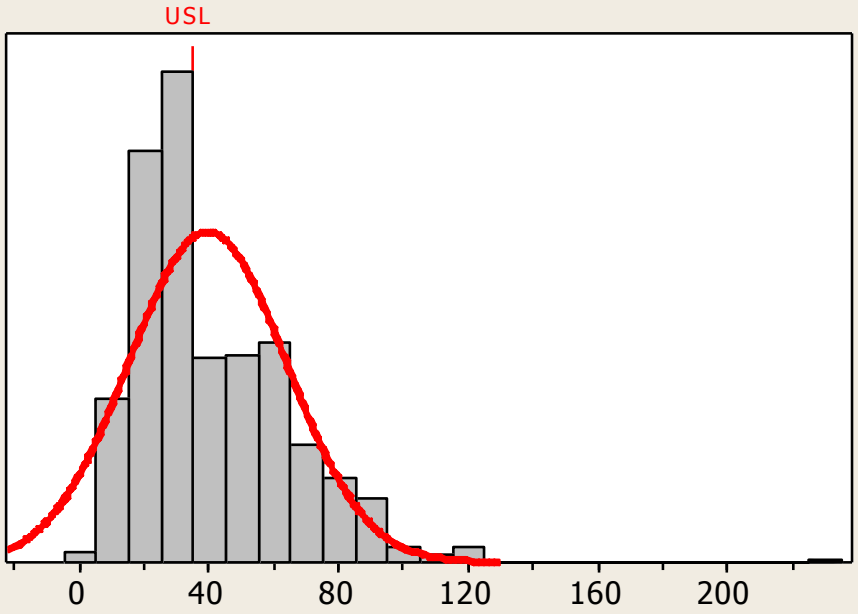


Interview Process



Write-up Process

Process Capability of Write-up Minutes



Process Data	
LSL	*
Target	*
USL	35
Sample Mean	39.2265
Sample N	543
StDev(Overall)	24.2935

Overall Capability	
Z.Bench	-0.17
Z.LSL	*
Z.USL	-0.17
Ppk	-0.06
Cpm	*

Observed Performance	
% < LSL	*
% > USL	45.30
% Total	45.30

Exp. Overall Performance	
% < LSL	*
% > USL	56.91
% Total	56.91

Worksheet: Worksheet 1

ANALYZE PHASE

Streamlining Application Workflow

Task Evaluation – Analyze

	Teams 1-4	Team 1	Team 2	Team 3	Team 4
min/cert	194.30	188.35	189.04	190.22	187.87
prep	19.00	20.00	15.00	15.00	20.00
interview	41.00	45.00	38.00	35.00	47.00
write up	31.00	33.00	25.00	30.00	35.00
total	91.00	98.00	78.00	80.00	102.00
Difference	103.30	90.35	111.04	110.22	85.87

Worker Analysis

- Develop desk aids and training for the clearance report, Unemployment Benefits computer system, IAF system
- Develop standardized methods of retrieving information and
- Issue memo to standardize the prep portion of the process
- Work with reception to institute process of notifying workers by e-mail of a client's arrival
- Reduce the number of times a worker is interrupted during write-up times

Benefits/Savings Summary

- Eliminate prep time for no-show applications - $19,365.00
- Reduce overall time - 9 minutes per application - $84,000.00
- Introduce best practices - $40,401.00

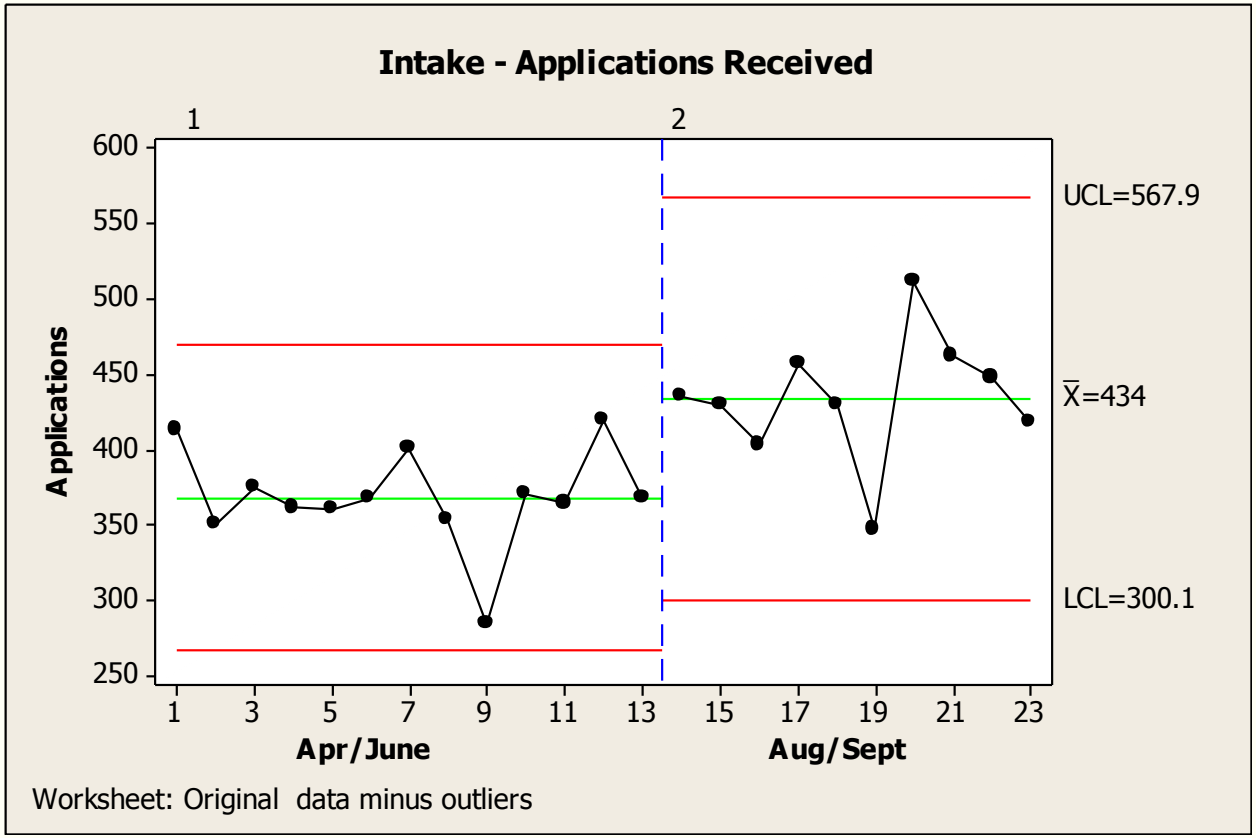
Total potential savings $143,766.00

Risk Assessment

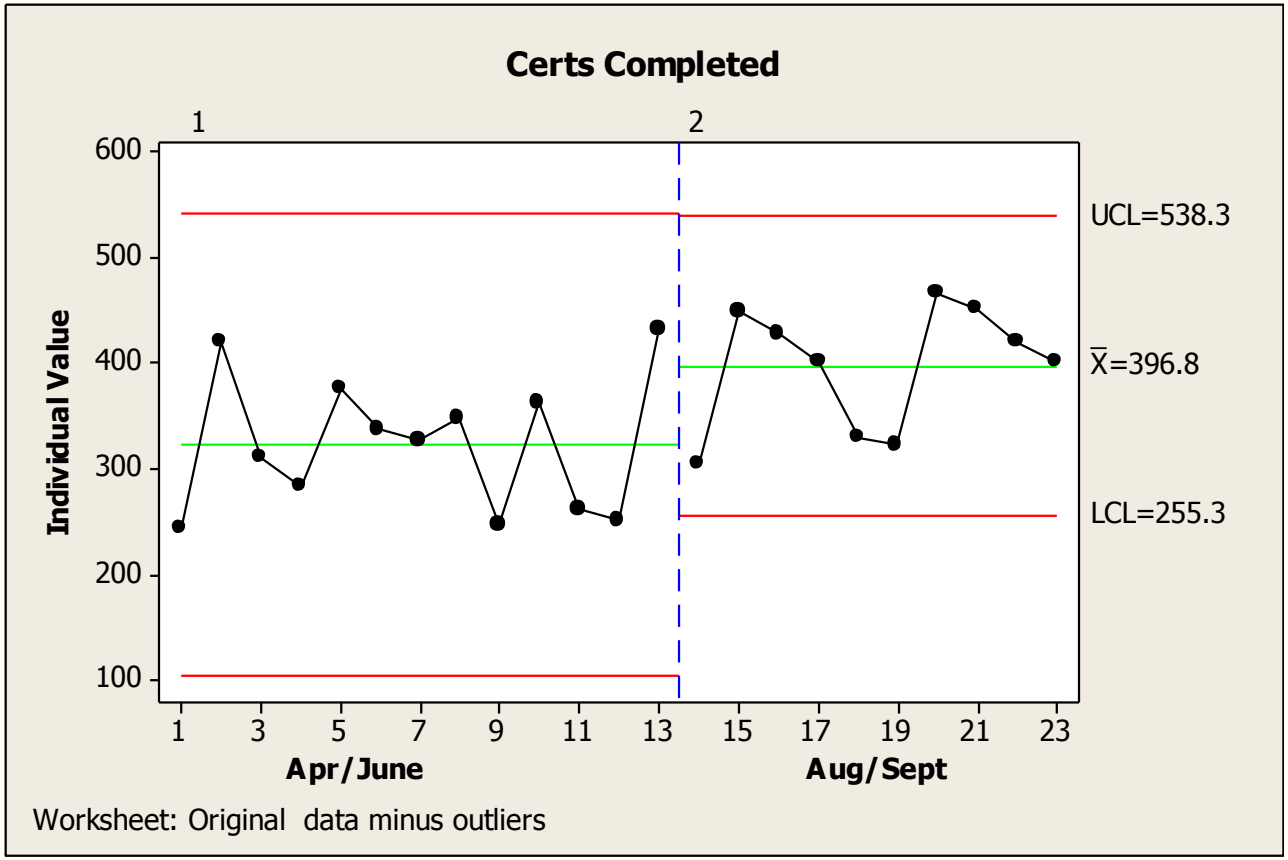
- Increased intake – number of applications submitted increases
- Loss of staff – due to job change
- Change management – changes are not implemented

- Intake increased an average 70 applications per month(20%)
- Loss of one staff person
- One change implemented – others are in progress

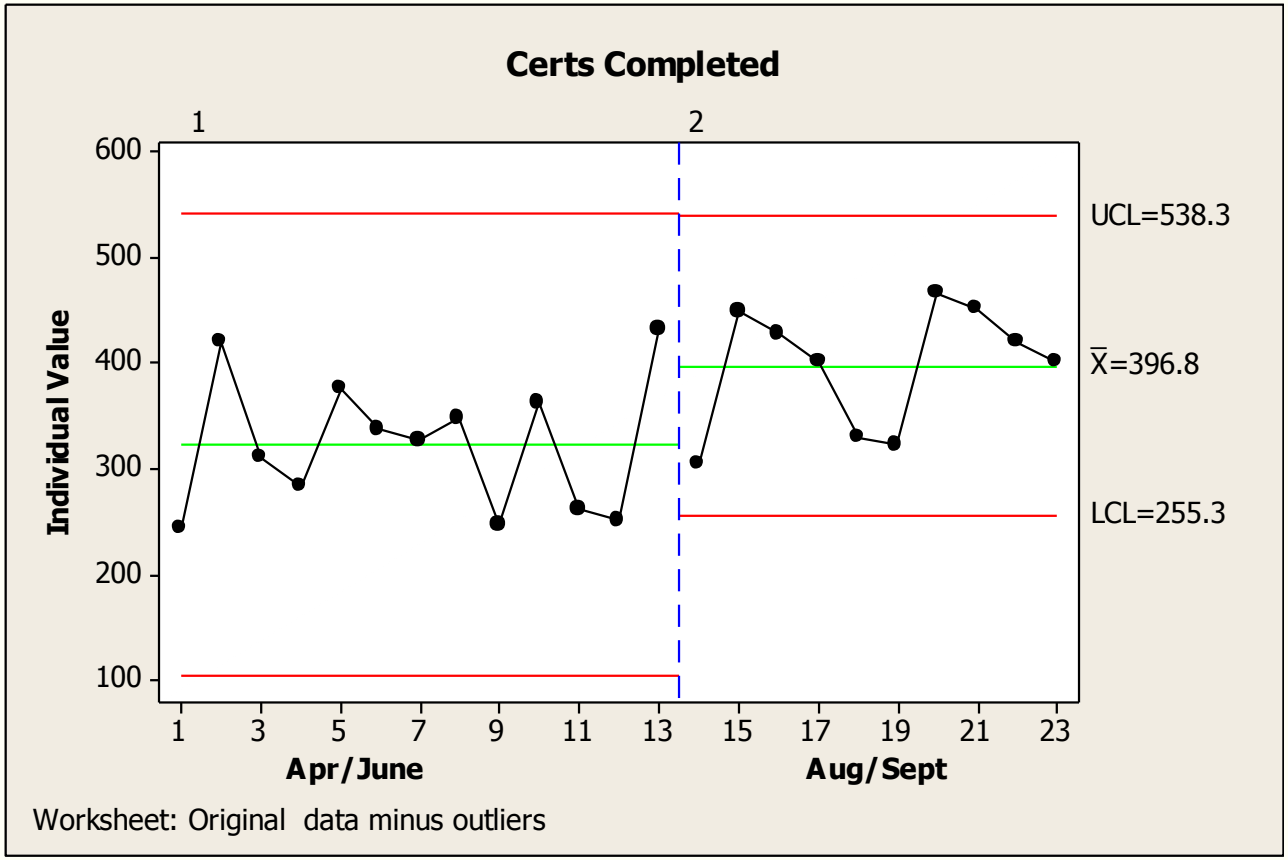
Follow up - Intake



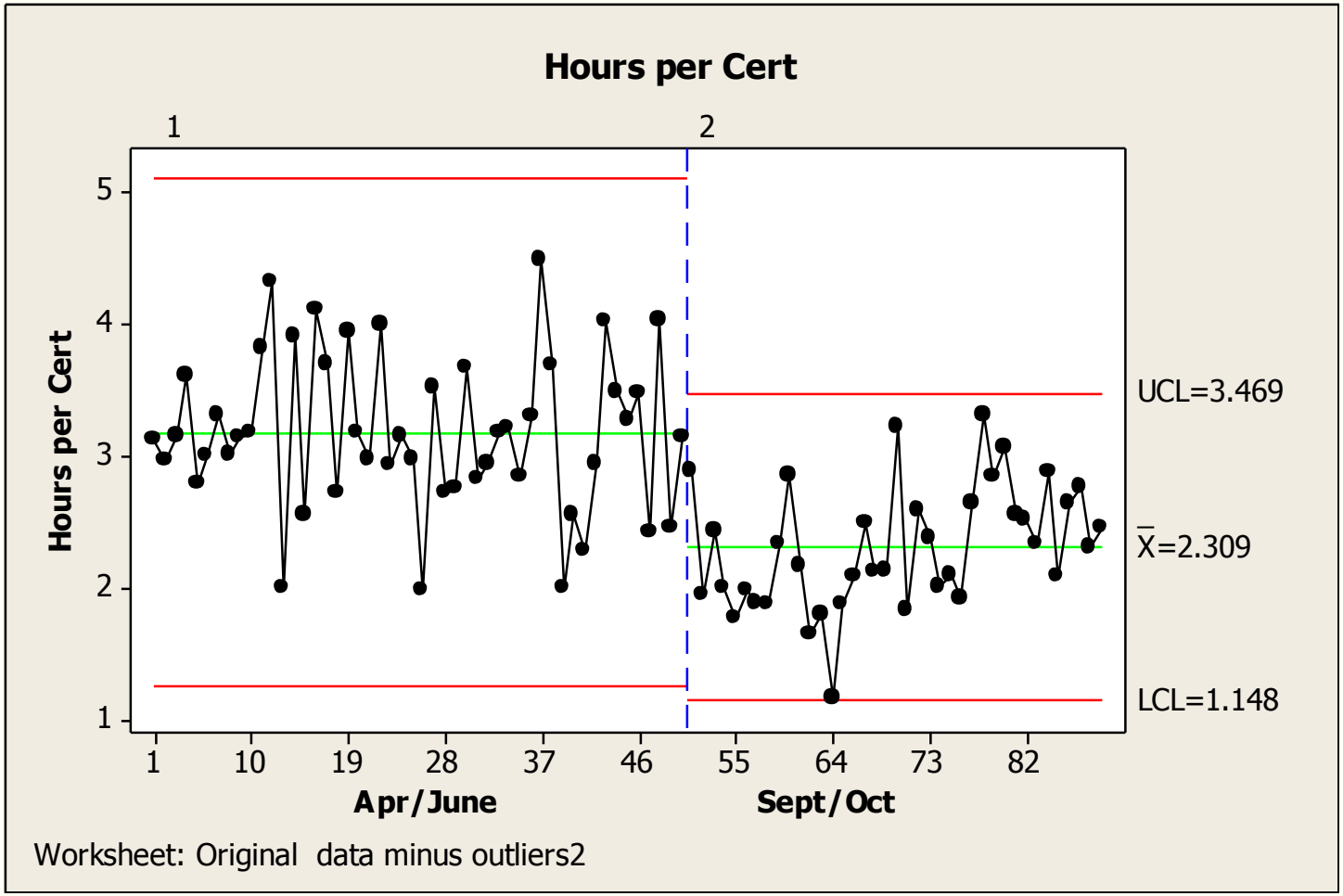
Follow up – Completed work



Follow up – Total hours



Follow up – Cycle Time



Next Steps/Barriers

- In progress
  - Develop desk aids/set up training
  - Designate one person to issue photo ID's
  - Write standard operating procedures
  - Put together a list of other projects
    - ECWC –screeners, clerical, Exp Food Stamps, clearance/record room, LAD referrals, incorrect denials,
  - Technology changes are beginning to happen
  - Monitor cycle time

- Barriers – resistance on the part of some line supervisors and staff

Six Sigma Tools Used

Define	Measure	Analyze	Improve	Control
✓Problem Statement	❑ SIPOC Diagram	✓ Potential X's	❑ Regression Analysis	❑ Control Methods
❑ Macro Map	✓ Process Flow Diagram	✓ Graphical Analysis	❑ DOE Planning	❑ Control Plans
❑ Identify Customers	❑ Value Analysis/ Muda	✓ Hypothesis Testing	❑ Screening DOEs	❑ Poka-Yoke
✓ Project Scope	❑ Detailed Flow (I/O)	✓ Means	❑ Quantifying DOEs	❑ SPM – Monitor Y
✓ Primary Metric	✓ Measurement System Analysis	❑ Variance	❑ Optimizing DOEs	❑ SPC – Control X's
❑ Secondary Metric	✓ Capability Analysis	❑ Proportions	✓ Verify Critical X's	❑ OCAP
✓ Consequential Metric	❑ Short Term Capability	❑ ANOVA	❑ Y = F(x)	❑ Update FMEA
✓ Baseline Data	✓ Long Term Capability	❑ Regression Analysis	❑ Optimization	❑ Project Transition Action Plans
✓ Entitlement	✓ Data Collection	❑ FMEA	✓ Generate Solutions	❑ Update Financial Benefits
✓ Objective Statement	❑ Process Monitoring	❑ ID Critical X's	❑ Select Solutions	❑ Final report
✓ Financial Estimates	✓ Lean Opportunities	❑ Quick Improvements	❑ Pilot Trials	❑ Close Project
❑ Non-financial Benefits	❑ C & E Fishbone	❑ Lean Improvements	✓ Capability Analysis	
✓ Team Members	✓ C & E Matrix	❑ Process Tracking		
❑ **Define Review**	❑ **Measure Review**	❑ **Analyze Review**	❑ **Improve Review**	❑ **Control Review**